REMARKS

Applicants thank Examiner Smalley and acting Supervisory Primary Examiner Newhouse for the courteous and helpful discussion held with Applicants' U.S. representative on May 21, 2003. The results of that discussion are summarized and expanded upon below.

Applicants also thank the Examiner for considering the references submitted in the Information Disclosure Statement. Thus, with the amendments and remarks submitted herewith, this application is now ready for allowance and issue.

The anticipation rejection over Elele '555 is obviated by amendment. The claims now require that the thermochromic material is admixed with the plastic composition of the cap body and that a non-thermochromic ink layer is present on at least a portion of the cap outer surface. These are not disclosed or suggested by the Elele reference, and withdrawal of the anticipation rejection is warranted. Applicants thank the Examiner for indicating during the discussion that the present amendment would be sufficient to overcome the anticipation rejection over the Elele '555 reference.

As was discussed during the interview, there is no teaching in Elele '555 that the thermochromic material should be admixed with the lid composition. Indeed, there is no disclosure or suggestion in Elele '555 that the thermochromic material should even be admixed with the *container* portion other than the mere disclosure that the lid and container portions may "include" thermochromic substances. One of ordinary skill thus receives no direction as to how the thermochromic substances in Elele '555 are applied to the lid assembly. Moreover, the reference discloses at column 6, lines 53-55 that the lid can be made from "inexpensive and durable metal and plastic materials." The disclosure of such lid materials and lack of any teaching other than "including" respecting the thermochromic materials in Elele '555 are further evidence of the lack of any teaching of admixture.

As was discussed during the interview, Elele '555 column 5, lines 8-12 discloses that the thermochromic-substance-containing portion can be attached to the inner container portion in a number of ways, which include "using adhesives or using processes which include encapsulation, electrodeposition, reactive sputtering, or ion beam sputtering." None of these processes bring to mind admixture. Moreover, these processes in the reference refer only to the container portion, and not the lid portion. There is no disclosure or suggestion in the reference that would make obvious a cap comprising a plastic composition wherein at least one thermochromic material is admixed with the plastic composition.

The claims also require that at least a portion of the cap outer surface be printed with a non-thermochromic (conventional) ink. As was discussed at the interview, Elele '555 is directed to a container wherein the lid includes thermochromic ink to function as a warning to the user against high temperatures. It thus would not be obvious to obscure even a portion of the thermochromic ink with any non-thermochromic printing - it would be contrary to the purpose of the Elele '555 device.

Accordingly, for all the above reasons and in view of the claim amendments, the anticipation rejection over Elele '555 should be withdrawn. In addition, for the same reasons, as was discussed during the interview, an obviousness rejection over the Elele '555 reference would be unsustainable, were such a rejection contemplated.

The obviousness rejection of Claim 15 over Elele '555 is obviated by amendment. Claim 15 and its dependent claims 16-18 have been canceled. Applicants kindly request that the rejection be withdrawn.

As was discussed during the interview, Applicants appreciate the Examiner's citation of Thompson '851, Hayes '592, St. Philips '525, Meyers '379 and Tekehana '014. None of these patents, however, anticipate or make obvious the present invention, as recognized by

the Office. Thompson '851 discloses a tamper evident cap, but this cap does not use or incorporate any thermochromic materials: the color change is generated by stress forces arising from mechanical effort, and not change in temperature. Hayes '592 relates to a multi-layer and multi-piece plastic cap, which changes color based on oxygen penetration. Like Thompson '851, this is a tamper evident cap that does not involve thermochromic inks. Rather, it includes an oxygen-sensitive indicator that allows the consumer to determine whether the contents have been in contact with oxygen. St. Philips '525 discloses a microwaveable container, which includes a temperature indicator mounted permanently to the container, which does not bring to mind the claimed plastic cap and admixed thermochromic material. Tekehana '014 merely discloses a bottling process, but does not disclose or suggest anything relating to thermochromic compositions.

As was discussed during the interview, Meyers '379 appears to be the most relevant of the cited but not relied upon references. Meyers '379 discloses an infant drinking cup, which includes a thermochromic material in admixture with the cup container. As discussed, this reference does not teach that the *lid* should have admixed therein thermochromic material, and there is thus no motivation to make a cap out of admixed thermochromic plastic. See, e.g., column 3, lines 1-8 of the reference.

Finally, the drawings have been corrected, as suggested by the Examiner, and the specification has been amended in view of the drawing corrections. Withdrawal of these grounds of objection is kindly requested.

For all the reasons given above, and in view of the amendments, it is believed that this invention is patentable over the references of record. Applicants kindly request that the Examiner pass this case to issue.

Respectfully submitted,

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